

Appl. No. : 09/70,540
Filed : January 26, 2001

REMARKS

In the Office Action mailed March 28, 2003 (Paper No. 13), the Examiner notes that the prior art fails to teach the Applicant's recited step of "replacing silicon in the silicon electrode structure with metal" as disclosed by the Applicant in Claim 6 of the pending application. The Examiner further notes that the Applicant has overcome prior rejections resulting in allowance of Claims 6-12 of the pending application. Additionally, in the Office Action, the Examiner rejected Claims 20-24 of the pending application under 35 U.S.C. §102(b) as being anticipated by Sandhu (US Patent No. 5,068,199). However, by this paper, the Applicant has amended Claim 20 to include the allowable subject matter of Claim 6 so as to further distinguish the art of record and respectfully requests reconsideration of Claim 20 in the light of the remarks contained herein.

After careful review, the Applicant notes that Sandhu fails to disclose "forming a metal electrode having a rugged surface on the substrate by replacing the silicon in the silicon electrode structure with a metal" as claimed by the Applicant in Claim 20. In general, poly-silicon or amorphous silicon are desirable materials from which to fabricate an electrode with a rugged surface. Also, metal generally conducts better than silicon. Advantageously, the Applicant's silicon-to-metal conversion process replicates the rugged silicon structure with the substituted metal, thus forming a rugged metal electrode having improved conductive characteristics.

Sandhu does not teach this. In fact, Sandhu teaches away from the Applicant's claimed process of Claim 20 by forming a rugged silicon electrode with an oxidation step, depositing a dielectric layer directly over the rugged silicon structure, and then depositing a second silicon layer thereon. Sandhu never even suggests replacing the silicon with a metal as disclosed by the Applicant in Claim 20. The problem with Sandhu is that Sandhu uses silicon instead of metal for the electrodes. In general, silicon is less conductive than metal. Thus, Sandhu cannot be said to anticipate the Applicant's invention under 102 or even teach it under 103. Since Sandhu teaches away from the Applicant's claimed process, there can be no suggestion to modify Sandhu with the teachings of any other cited reference. Therefore, from the foregoing, the Applicant submits that Claim 20 as amended is patentable over Sandhu and respectfully requests reconsideration of Claim 20 with allowance of the same.

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SUMMARY

From the foregoing, the Applicant believes that the present application is in condition for allowance, and the Applicant requests the prompt allowance of the same. In light of the above discussion, the Applicant respectfully requests reconsideration of the remaining Claims 21-24, which further define patentable subject matter and are allowable due to their dependencies on Claim 20. The undersigned has made a good faith effort to respond to all of the rejections in the case and to place the application in condition for immediate allowance. Nevertheless, if any undeveloped issues remain or if any issues require clarification, the Examiner is respectfully requested to call the undersigned at the number shown below.

Respectfully submitted,

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